

Amendments to the claims:

1. (currently amended) A braking device for an electric motor, comprising:
a rotor (10, 10') and a stator for a direct current series wound motor;
a brake element (20, 20') which is movable between a braking position and an operating position, wherein a brake shoe (30, 30') which brakes the rotor (10, 10') in the braking position is mounted on the brake element (20, 20'),
wherein the brake element (20, 20') has a trailing end and a leading end, wherein the trailing end is a back part of the brake element (20, 20') relative to the direction of rotation of the rotor (10) and the leading end is disposed opposite to the trailing end, wherein the brake shoe (30, 30') is mounted on the brake element (20, 20') on a the trailing end relative to the direction of rotation of the rotor (10, 10'), such that during rotation, the rotor (10) first enters the leading end and then leaves the trailing end of the brake element (20, 20').

2. (previously presented) The braking device of claim 1, wherein the brake element (20, 20') has a brake arm (26, 26') on the trailing end that carries the brake shoe (30, 30'), and has a disengagement arm (24, 24') on the a leading end.

3. (previously presented) The braking device of claim 1, wherein the stator has a yoke part (14, 14') of a magnetically conductive material on a leading end and has a stator winding (18).

4. (previously presented) The braking device of claim 3, wherein the brake element (20, 20') is magnetically conductive and, together with the yoke part (14, 14') on the leading end, encloses a motor air gap with the rotor (10, 10') that in the braking position, on the leading end, has an essentially constant gap width.

5. (previously presented) The braking device of claim 3, wherein between the yoke part (14, 14') on the leading end and the disengagement arm of the brake element (20, 20'), there is an air gap (32, 32'), and in the yoke part (14, 14') on the leading end, between the stator winding (18) and the air gap (32, 32') from the disengagement arm (24, 24') of the brake element (20, 20'), there is a constriction (34), which forms a magnetic resistor in the yoke part (14, 14') on the leading end.

6. (previously presented) The braking device of claim 1, wherein the brake element (20, 20') and/or the yoke part (14, 14') on the leading end and/or another yoke part (16, 16') on the trailing end has a plurality of lamination packets (TP1-TP8), which each comprise a plurality of electrical laminations and which are disposed axially successively relative to a pivot axis.

7. (previously presented) The braking device of claim 1, wherein bearing pin (22, 22') for supporting the brake element (20, 20'), the bearing pin (22, 22') being supported in a fixed bearing point by a positive-engagement connection that is secure against relative rotation.

8. (previously presented) The braking device of claim 1, wherein the brake element (20, 20'), in the braking position, rests on the trailing end on a fixed stop face (46'), and the stop face (46') has a predetermined angle of inclination relative to a radial direction, in order to attain a self-clamping of the brake element (20, 20').

9. (previously presented) The braking device of claim 1, wherein the brake element (20, 20') is prestressed in the direction of the braking position by a compression spring (28, 28'), and a guide spur (48, 50) for the compression spring (28, 28') that protrudes into the compression spring (28, 28') is disposed on the brake element (20, 20').

10. (previously presented) An electric motor having a braking device of claim 1.

11. (original) A machine tool having an electric motor of claim 10.